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Agenda Item 4b

May 17, 2011

TO: MEMBERS OF THE BENEFITS AND PROGRAM ADMINISTRATION COMMITTEE

I. **SUBJECT:** Actuarial Valuation Report for the Judges' II Retirement System as of June 30, 2010 and Employer Contribution Rate for the 2011-2012 Fiscal Year

II. **PROGRAM:** Actuarial Office

III. RECOMMENDATION:

It is recommended that the Committee accept and recommend to the Board of Administration approval of the June 30, 2010 Judges' Retirement System II Actuarial Valuation Report along with the change in assumptions as outlined in the report and transmittal letter with adoption of an employer contribution rate of 23.441% for the period of July 1, 2011 to June 30, 2012.

IV. ANALYSIS:

Enclosed is the CalPERS staff actuarial valuation report as of June 30, 2010, for the Judges' Retirement System II. Also attached is the transmittal letter to the Governor and Legislature.

Valuation Results

The table on the following page summarizes key results from the valuation:

	<u>June 30, 2009</u>	<u>June 30, 2010</u>
Present Value of Benefits	\$ 972,235,626	\$ 1,060,742,176
Accrued Liability	\$ 450,547,115	\$ 520,687,470
Market Value of Assets	\$ 315,576,578	\$ 422,100,782
Funded Status (Market Value Basis)	70.0%	81.1%
Recommended Employer Contribution Rate	24.041%	23.441%
Employee Contribution Rate	8.00%	8.00%

Discount Rate

Last month, the Board approved a new asset allocation strategy for the Judges' Retirement System II fund. The first step required following a change to the assets allocation strategy is to determine whether or not a change to the discount rate is necessary.

The discount rate assumption that was used in the previous actuarial valuation is 7.25%. This discount rate was based on an expected gross investment return of 7.75% minus a 0.5% for administrative expenses.

As part of its review of the discount rate assumption, the first step the Actuarial Office took was to review the appropriateness of the expected administrative expenses. The 0.5% of assets for expected administrative expenses was derived in the early years of the system and was appropriate at the time since the fund had very little in assets and the expenses represented a larger portion of the fund. A review of the administrative expenses of the last 8 years for the fund showed expenses have averaged about 0.25% of the fund value over that period. Therefore, we have changed out administrative expenses assumption from 0.50% to 0.25% of the fund value.

The method used to determine the discount rate assumption for the Judges' Retirement System II was the same as the one used for the PERF that was presented to the Board in March. We have taken into account both short and long term return expectations as well as reflecting the expected cash flows for the Judges' Retirement System II. Simulated returns were used together with the asset allocation mix adopted by the CalPERS Board to determine the 25th to 75th percentile range of the geometric expected return over a period of 21 years.

Below are the percentiles of the expected investment returns using a 21 year horizon both before and after reflecting the 0.25% in expected plan administrative expenses.

Expected Geometric Investment Returns Over the Next 21 Years

	25th Percentile	50th Percentile (Median)	75th Percentile
Expected Return (Before Administrative Expenses)	5.95%	7.63%	9.31%
Expected Administrative Expenses	(0.25%)	(0.25%)	(0.25%)
Expected Net Investment Return	5.70%	7.38%	9.06%

Based on the ASOP No. 27 guidelines, a reasonable range for the discount rate assumption is from 5.70% to 9.06%. Even though actuarial standards of practice

allow a wide range for the discount rate assumption, it is generally recommended to select an assumption between the 25th and 50th percentile in order for the fund to have at least a 50% chance of earning an investment return equal to or higher than the discount rate assumption

To be consistent with the decision that the Board made in March for the PERF, we are recommending the use of a minimal margin for adverse deviation and to keep the discount rate assumption at its current level of 7.25%. As shown above, the asset allocation strategy selected by the Board in March has a median investment return net of administrative expenses of 7.38%. Keeping the discount rate at 7.25% implies that the Board will elect a margin for adverse deviation of 13 basis points. The valuation results presented in this agenda item along with the attached valuation report were all prepared using a discount rate assumption of 7.25%.

If the Board were to prefer to use a larger margin for adverse deviation and adopt a discount rate of 7.00%, the contribution rate for fiscal year 2011-2012 would increase by about 2% of payroll. The rate would go from 23.441% to approximately 25.4% and the expected dollar contribution would increase by about \$4.3 million. The margin for adverse deviation would be increased from 13 basis points to 38 basis points.

Since the attached valuation report was prepared using a discount rate assumption of 7.25%, if the Board were to instead adopt a discount rate of 7.00% then the contents of the valuation report would need to be revised to reflect the lower discount rate.

We believe that either using a lower margin for adverse deviation and choosing a discount rate assumption of 7.25% or lowering this assumption to 7.00% would be a reasonably prudent assumption. Both assumptions would be able to provide for an actuarially sound system over time with a 7.00% assumption providing slightly more security than remaining at 7.25%.

Reconciliation of Employer Contribution Rates

The reasons for the change in employer contribution for the Judges Retirement System between fiscal year 2010-2011 and fiscal year 2011-2012 are shown on the next page:

	Percentage of Projected Payroll	Estimated \$ Based on Projected Payroll
1. 2010-2011 Employer Rate (from prior year annual report)	24.041%	\$ 50,949,124
2. Effect of changes since the prior annual valuation		
a) Effect of change in payroll	-	3,554,749
b) Effect of change in actuarial assumptions	0.000%	0
c) Effect of new actuarial methods	0.000%	0
d) Effect of unexpected changes in demographics	(0.600%)	(1,359,736)
e) Net effect of the changes above [Sum of a through d]	(0.600%)	2,195,012
4. 2011-2012 Estimated Employer Contribution	23.441%	\$ 53,144,136

Investment Return Sensitivity Analysis

As part of this agenda item, an investment return sensitivity analysis was performed to display the potential risk to the employer contribution rates.

Five different scenarios were selected to give you a 95% confidence interval of where the employer contribution rate for the fiscal year 2012-2013 might settle. These scenarios represent a wide range of potential outcome based on the asset allocation strategy adopted by the Board of this system. For example, the 95th percentile return of 26% means there is a 5% chance that the fund will experience a return of 26% or better in any given year.

The table on the following page shows the estimated 2012-2013 contribution rate for the Judges' Retirement System II under the five different investment return scenarios. Note that the 2010-2011 investment return would first be reflected in the June 30, 2011 actuarial valuation that will be used to set the 2012-2013 employer contribution rates.

Estimated 2012-2013 Employer Rates Under Various Investment Return Scenario

Percentile	5 th	25 th	50 th	75 th	95 th
Estimated Return	-11%	0%	7.25%	15%	26%
Estimated Contribution Rate	24.4%	23.6%	23.5%	23.5%	23.4%
Change from prior year	1.0%	0.2%	0.1%	0.1%	0.0%

On March 31, 2011, the fiscal year to date investment return was about 19.9%.

The Actuarial Value of Assets used in the June 30, 2010 report is 109.2% of the Market Value of Assets. There is a large portion of the corridor which we can still use to smooth the fiscal year 2012-2013 rates. This is why the rates are expected to remain stable in 2012-2013 despite the wide variety of investment returns.

V. STRATEGIC PLAN:

This item is not a specific product of the Strategic or Annual Plans but is part of the regular and ongoing workload of the Actuarial & Employer Services Division.

VI. RESULTS/COST:

See enclosed actuarial report.

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Attachments